



# LID Monitoring Projects

## Mississauga Valley Community Centre – Parking Lot Retrofit

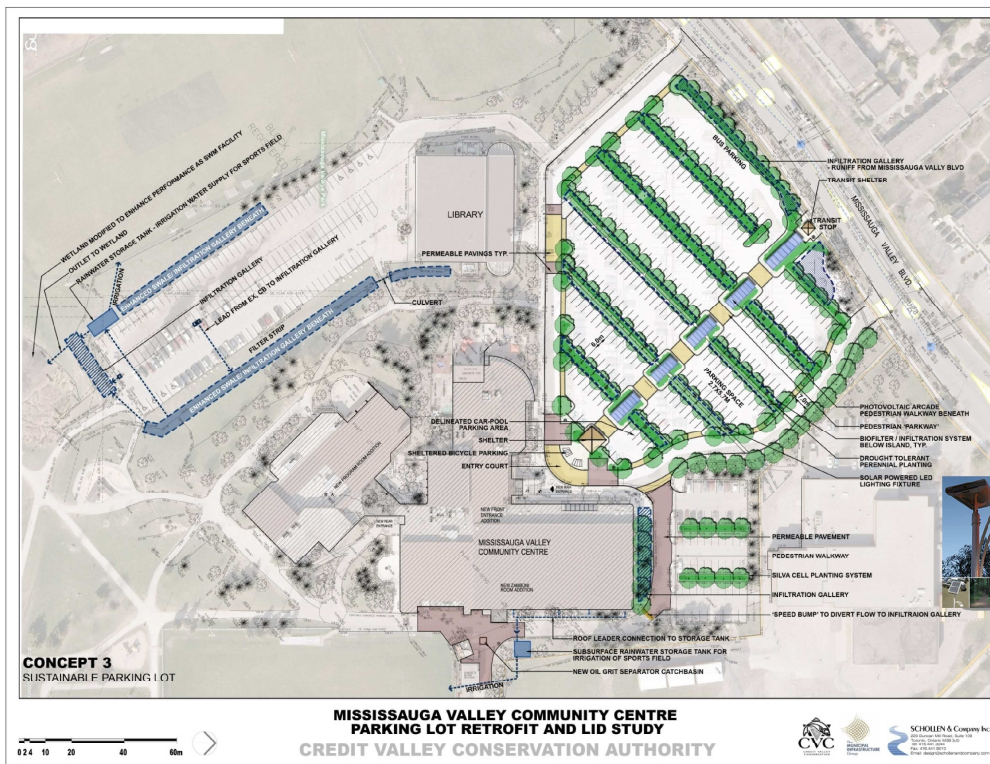
### Background

City of Mississauga and Credit Valley Conservation (CVC) have partnered to develop a Green Parking lot pilot project for the Mississauga Valley Community Centre (MVCC). More recently, increases in the frequency of severe rain events has increased concern over urban flooding. Cooksville Creek, an urban Mississauga stream, flooded its banks back in August 2009. To help address rising concern over urban flooding the MVCC pilot project will incorporate green features such permeable pavement, infiltration galleries, enhanced swales, and bioretention that will filter and store water washing off roads and parking lots before entering Cooksville Creek and Lake Ontario. The project plans for a total redesign of the MVCC parking lot to provide for storm water quality and quantity control.

**Location:** Mississauga Valley Community Centre, Mississauga

### LID Practices Implemented

- **Permeable Paving Stones** increases stormwater infiltration by allowing water to soak into the joints between the paving stones and into the ground.
- **Enhanced Swales and Bioretention** are a stormwater management technique that uses the chemical, biological, and physical properties of plants and soils to treat stormwater runoff. They are designed to mimic natural conditions promoting infiltration, retention, and the slow release of stormwater runoff.
- **Infiltration Galleries** are underground areas of gravel that allow runoff to infiltrate into the ground reducing surface runoff.



BIO-RETENTION FEATURES



PERMEABLE PAVEMENT





## LID Monitoring Projects

### Why are we Monitoring?

- We are evaluating the effectiveness of the retrofit at reducing the volume and improving the quality of stormwater runoff from the parking lot compared to conventional parking lots.



### What are we Monitoring?

- We are measuring water flow using a continuous level logger and a weir.
- We are also taking flow weighted water samples during precipitation events.
- In addition, we are using a water quality meter to measure some basic water quality parameters continuously.



### When did monitoring begin?

- Monitoring started in 2008 and continued until 2010 to collect background data.
- Monitoring is currently on hold until construction

### Who are the Partners?

- Credit Valley Conservation, & The City of Mississauga.